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09/727,071	11/30/2000	Charles David Johnson	BLD9-2000-0006US1	2728

7590 07/29/2004  
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EXAMINER

DIVINE, LUCAS

ART UNIT PAPER NUMBER

2624

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/727,071

Applicant(s)

JOHNSON, CHARLES DAVID

Examiner

Lucas J Divine

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2624

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 4/11/2001 was filed after the mailing date of the application on 11/30/2000. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 15, 18, 20, 24, and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Claims 2 – 14, 16, 17, 19, 21 – 23, and 26 – 29 are also rejected based on their dependency on the rejected independent claims. The independent claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification is does not provide an enabling disclosure as to how the print engine for the residual queues operates. Print jobs are routed to the residual queue because their destination print queue names do not match any of the named print queues. This residual print engine is stated to print all the unidentifiable jobs placed in the residual queue without describing how it will take a wide variety of print jobs that are not accepted by the named queues and print them successfully as implied. It is not

Art Unit: 2624

understood from the applicant's disclosure how this residual print engine is able to print all of the residual jobs. Further explanation of the operation of this residual print engine is needed to enable one skilled in the art to make and/or use this invention.

3. Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The first and second filter methodologies are discussed, but an enabling disclosure as to how they format the data is not provided. A written description of the algorithm steps and/or code that provides for converting of the print jobs discussed on page 24, lines 20 – 24 of the application is required. Further explanation discussing what exactly the schemes and methodologies are and how they work to correctly format the data for printing is required to enable one skilled in the art to make and/or use this invention.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 7, 9 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hower, Jr. et al. (US 5467434) in view of Yellepeddy et al. (US 6288790), hereafter as Hower and Yellepeddy.

Art Unit: 2624

Regarding claim 1, Hower teaches a printing system (Fig. 1 ref. no. 10, col. 3 lines 35-66) that has at least one named print queue (Fig. 2 ref. no. 41-1...42-N, col. 4 line 29, wherein the queues are selectable by the user). This printing system includes a method for receiving print jobs (col. 4 line 9, wherein the jobs are transmitted from client to server, which implies that the server then has the ability to receive the print jobs). Hower also discloses forwarding print jobs to their corresponding print queues after a comparison step matches has matched them (col. 4 lines 52-52, wherein comparisons are done based on print job selections from the user and one option of the user is to select a print queue as stated above). The forwarding of said print jobs is specifically shown in Figure 8 (Fig. 8 ref. no. 72-1...72-N, col. 6 lines 45-47, wherein the various sending actions take place based on different comparisons 52, 56, 60, and 66).

In the case that no named queues match and the comparisons fail, the print job is not sent to any queues and a fault message appears to the user (Fig. 8 ref. no. 54, 58, 64, and 70, col. 7 lines 38-41). Thus, Hower does not disclose the idea of a residual queue to handle erroneous print jobs or the routing thereof, but he does suggest that alternate approaches can be used to handle erroneous print jobs (col. 9 line 20, wherein finishing option rules can be reprogrammed).

Yellepeddy teaches using a residual print queue to handle erroneous print jobs (Fig. 2A ref. no. 206, col. 4 lines 11-29, wherein this queue holds the print jobs for which the named queue can not be found). Yellepeddy teaches that erroneous print jobs are forwarded to said residual print queue when the named queue designated is not found in the printing device (Fig. 4A step 406, col. 7 lines 48-50, wherein a remote printer queue being inaccessible equates to the queue name not being found). A method for printing a

Art Unit: 2624

print job forwarded to the residual print queue is also disclosed (Fig. 4B step 442, col. 4 lines 43-47, wherein the job can be later chosen to be printed on a remote printer).

Hower and Yellepeddy are combinable because they are from the same field of endeavor i.e. handling and printing print jobs within a printing system comprising print queues.

It would have been obvious to a person of ordinary skill in the art to use the residual queue system teaching of Yellepeddy to handle the erroneous print jobs of Hower. This would increase the overall print efficiency of the system by assuring that jobs that otherwise would not have been printed by Hower's setup are now printed.

Regarding claim 2, which depends from claim 1, Hower teaches the further printing of print jobs forwarded named queues via the associated printers (Fig. 2 ref. no. 12-1...12-N, col. 3 line 37-40).

Regarding claim 3, which depends from claim 1, the print jobs that are forwarded to the residual queue of Yellepeddy must have their original queue name designation converted to the residual name in order to correctly route and forward the print job to the residual queue (Hower col. 4 line 9, wherein the forwarding of print jobs to the correct queue is assumed in transmission).

Regarding claims 4 and 5, which depend from claim 3 as applied to claim 1, the recognizing **claim 4** and the determining and comparing of **claim 5** are completed by the methods of the combination examiner of Hower (Fig. 2 ref. no. 37, col. 4 lines 49-64). The combination examiner handles the comparisons of print job properties including the selected queue, which in this case would have been converted by the method in claim 3,

Art Unit: 2624

with a list of printer properties which determines where the print job is forwarded as in claim 1 (Fig. 8, wherein example comparisons are shown).

Regarding claim 6, which depends from claim 1, the method of determining is completed by the methods of the combination examiner of Hower as applied to claims 4 and 5.

Regarding claim 7, which depends from claim 6, the specific method of determining by comparing a queue name field in the print command is met by the comparisons in the combination examiner as shown in figure 8 (col. 5 lines 59-66, wherein Hower states that other suitable approaches can be used for desired comparisons). These comparisons can include the %XRXrecipientName field of the job as shown in figure 3 (Fig. 3 ref. no. 35-1) as it is a recipient name field and the current recipient is the named queue to route the job to as talked about in claim 1.

Regarding claim 9, as applied to claim 1, Hower teaches that each print queue is mapped to a printer profile (Fig. 2 ref. no. 44, column 4 line 31). These profiles will hereafter be referred to as filters because they along with the server processor (ref. no. 50) act as filters, converting the print job data into the specific data needed for the printers. By adding the residual queue of Yellepeddy to the printing methods of Hower, the residual queue would also have a specific filter associated with it in order to convert the data in the residual queue for printing as claimed in claim 9.

Regarding claims 10 and 11, which depend from claim 9 as applied to claim 1, Hower teaches that each one of the one or more filters corresponding to named queue designations is associated with a different one of the print queues (Fig. 2 ref. no. 43, col. 4 line 39, wherein each queue is mapped to a different specific filter in a one-to-one

Art Unit: 2624

relationship). Various mapping arrangements other than one-to-one can be used with Hower's invention which satisfies the limitation set forth in **claim 10** of 'one or more filters' (col. 4, line 40).

Regarding claim 12, as applied to claim 1, Hower teaches that the disclosed printing system transmits the print job from the client (Fig. 2 ref. no. 15) to the server (Fig 2 ref. no. 25, col. 4, line 9), and it then is transmitted to the printers (Fig 2 ref. no. 12 col. 1, line 18).

Regarding claim 13, which depends from claim 12, Hower teaches using a complete networked system (Fig. 1 & 2, col. 3 lines 63-66).

Regarding claim 14, which depends from claim 1, Hower teaches a method of using a print command to transmit print jobs through the system (Fig 2. ref. no. 35, col. 4 lines 5-8). The queue name field limitation is met by the %XRXrecipientName field of the job (Fig. 3 ref. no. 35-1, wherein it is a recipient name field and the current recipient is the named queue to route the job to as talked about in claim 1).

Regarding claim 20, the limitations of the computer readable program storage medium tangibly embodying a program of instructions are included in the limitations of rejected method claim 1. The operation of the computer program claim 20 performs the steps of method claim 1 within a computer readable medium as covered in Hower where the instructions for the operations to the prescribed methods above are stored in a computer readable medium such as the server processor (Fig. 2 ref. no. 50) or combination examiner and memory (Fig. 2 ref. no. 37, col. 2 lines 32-50 and col. 4 line 50 and col. 7 line 15).



Art Unit: 2624

Regarding claim 21, which depends from claim 20, when Yellepeddy defines the residual queue (Fig. 2A ref. no. 206), Yellepeddy also must complete the step to assign it a corresponding name. These print jobs that are forwarded to the residual queue of Yellepeddy must go through a step to have their original queue name designation converted to the residual name in order to correctly route and direct the print job to the residual queue (Hower col. 4 line 9, wherein the forwarding of print jobs to the correct queue is assumed in transmission).

Regarding claim 22, which depends from claim 20, claim 6 wholly recites the steps of claim 22 for determining whether the print jobs identify destination print queue names that do not match a named print queue. Therefore, program steps claim 22 is rejected as it is applied to independent claim 20 based on the rejection of claim 6.

Regarding claim 23, which depends from claim 20, the limitations of method claim 9 wholly recite the steps of claim 23 for commonly filtering residual print queue jobs with a shared filter. Therefore, program steps of claim 23 are rejected as it is applied to independent claim 20 based on the rejection of claim 9.

Regarding claim 25, the limitations of method 1 wholly recite the steps of method claim 25. The use of named queues of Hower, cited in the rejection of claim 1, assumes the assigning of names to the one or more print queues. Therefore, method claim 25 is rejected based on the rejection of claim 1.

Regarding claim 26, which depends from claim 25, the limitations of claim 26 are included as limitations in claims 1 and 2. Claim 1 covers the forwarding of jobs to their associated named queue, and claim 2 covers the printing of one or more of the print jobs

Art Unit: 2624

stored in the named print queues. Therefore, claim 26 is rejected as it applies to claim 25 based on the rejections of claims 1 and 2.

Regarding claim 27, which depends from claim 25, the limitations of method claims 1 and 3 include the limitations of the method claim 27. The dependent claim 3 recites the same steps as method claim 27, therefore claim 27 is rejected as it applies to claim 25 based on the rejections of claims 1 and 3. In regards to the defining of a residual queue name, claim 3 assumes the creation of such a 'residual print queue designation.'

Regarding claims 28 and 29, which depend from claim 25, the limitations of method claims 1, 9 and 10 above include all limitations of the method claims 28 and 29. The dependent method claims of 9 and 10 recited the same steps as the method claims of 28 and 29, therefore claims 28 and 29 as applied to claim 25 are rejected based on the rejections of claims 1, 9, and 10.

Regarding claim 24, Hower discloses in figure 2 a computer network system for processing print jobs. Thus, all of the functionality the network can be applied to claim 24. The inclusion of a plurality of client computers (Fig. 2 ref. no. 15-1...15-N) and a server (Fig. 2 ref. no. 25) meets the limitations in the preamble of claim 24.

Hower teaches using a client job control module to generate print job commands (Fig. 2 ref. no. 16, col. 4 line 53). The destination queue name limitation is met by the %XRXrecipientName field of the job (Fig. 3 ref. no. 35-1, wherein it is a recipient name field and the current recipient is the named queue to route the job to as talked about in claim 1). Hower also teaches that transmission media is coupled between all of the components of the network, including client and server (Fig. 2, col. 3 line 65 and col. 4

Art Unit: 2624

line 9, wherein communication channels interconnecting the network transmit jobs from client to server). As shown in Figure 2 of Hower, there is a plurality of named print queues within said network system (Fig. 2 ref. no. 41-1...42-N, col. 4 line 29, wherein the queues are selectable by the user). Yellepeddy teaches using a residual print queue to handle erroneous print jobs (Fig. 2A ref. no. 206, col. 4 lines 11-29, wherein this queue holds the print jobs for which the named queue can not be found).

Hower also discloses a server job control module (Fig. 2 ref. no. 37, col. 4 lines 49-64, wherein it is noted that the combination examiner could be disposed at the server). This job control module has both a compare module (Fig. 8 ref. no. 52, 56, 60, and 66, col. 4 line 54, wherein selections programmed by the user are compared, such as queue name) wherein failing the comparison provides the job with an undefined identifier as the job is passed along the flow of Figure 8 to the queue name resolution module. Yellepeddy discloses this queue name resolution module (Yellepeddy Fig 4A ref. no. 406, col. 7, lines 48-50, wherein print jobs are directed to the residual queue based on being unidentifiable or undefined). A print engine for printing a print job forwarded to the residual print queue is also disclosed by Yellepeddy (Fig. 4B step 442, col. 4 lines 43-47, wherein the job can be later chosen to be printed on a remote printer Fig. 1 ref. no. 108).

Regarding claims 15 – 17, the printers (Fig. 2 ref. no. 12) and the print server (Fig. 2 ref. no. 25) of Hower can be combined into one printer device as broadly recited from claim 15. The limitations of said printer are met in the rejection of apparatus claim 24.

Regarding claim 18, the printers (Fig. 2 ref. no. 12) and the print server (Fig. 2 ref. no. 25) of Hower can be combined into one print server device as broadly recited

Art Unit: 2624

from claim 18. The limitations of said print server are met in the rejection of apparatus claim 24.

Regarding claim 19, which depends from claim 18, Hower teaches using filters to format the print jobs (Fig. 2 ref. no. 44, column 4 line 31, wherein the printer profile acts as a filter as discussed in the rejection of claim 9). By adding the residual queue of Yellepeddy to the printing methods of Hower, the residual queue would also have a specific filter and methodology associated with it in order to convert the data in the residual queue for printing as claimed in claim 19. The same filtering applies to the named print queue filters of Hower having a different filter or filters as that of the residual queue as discussed in the rejections of claims 10 and 11.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hower in view of Yellepeddy as applied to independent claim 1 and dependent claim 7 above, and further in view of McLaughlin.

The combination of Hower and Yellepeddy does not teach the use of the Line Printer Daemon (LPD) Protocol as a specific protocol to send the print jobs in such a printing system. McLaughlin teaches using the LPD Protocol as a common and effective way to send print jobs with a queue name field, as shown in McLaughlin section 5 and further. It would have been obvious to a person of ordinary skill in the art to create a standard method of transferring print jobs in the Hower/Yellepeddy system in accordance with the LPD Protocol. The motivation for doing so would have been to adapt a specific, proven, and industry standard way of preparing and using print jobs throughout said system.

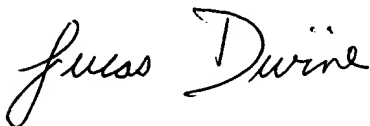
Art Unit: 2624

*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas J Divine whose telephone number is (703)306-3440. The examiner can normally be reached on Monday through Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ljd

Lucas J Divine  
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